Production of Trees and Shrubs in Germany

Donnchadh Mac Càrthaigh
Fachhochschule Weihenstephan, 85350 Freising, Germany

HISTORY OF NURSERY STOCK PRODUCTION IN GERMANY

The production of trees and shrubs in Germany goes back more than 200 years. Henne (1776) describes his experience in setting up a "large" nursery for fruit tree production — it covered approximately 2500 m^2. His nursery, in the Principality of Halberstadt, was one of the first private nurseries in Germany. All earlier nurseries belonged to the monasteries or to the rulers of that time. The industrial revolution led to a new bourgeois class. A businessman in Hamburg, Caspar Voght, employed James Booth, a Scotsman, to set up a nursery, which was to become the starting point of the biggest nursery stock growing area in the world — Pinneberg in Holstein (see Lösing, this volume).

At the end of the nineteenth century there were many large private nurseries. One of the biggest, in Berlin, was Späth which covered well over 100 ha. After World War II, nurseries were forced by the British authorities to reduce the area cultivated by each nursery by up to 95% and were required to grow vegetables. It is difficult to assess the effect of this decree but certainly nurserymen were pleased when things began to normalise in 1947 and indeed, in that year more than three times the normal amount of sowing was done (Alpen et al., 1994).

The 1950s and 1960s, were the decades of the German "Wirtschaftswunder", the economic miracle. The increasing affluence of the average citizen led to a huge increase in the demand for trees and shrubs. In 1971 there were about 14,000 ha of nurseries in the former Federal Republic of Germany (West Germany). Twenty-one years later in 1992 this area had increased to almost 23,000 ha. Now Germany, including the former East Germany, has about 27,000 ha (Table 1). In 1992-93 the total value of trees and shrubs produced in Germany was DM1610m (Table 2). There is, therefore, a much larger area under production in Germany than in Europe's most important tree and shrub exporting country, the Netherlands, which has approximately 12,000 ha of production.

The average size of nurseries is tending to increase. In 1986 the average nursery was 4.7 ha but by 1996 the average was 6.6 ha (Table 1). Business is becoming concentrated into the hands of a smaller number of larger nurseries and there are not so many smaller nurseries now as in previous decades, a situation that can also be seen in the Netherlands.

MARKETING, CROPS, AND PRODUCTION REGIONS

The expanding market lasted well into the 1980s in Germany. Until then weaker nurseries survived reasonably well. Most nurseries did not have to be particularly active in selling plants. Some growers even waited for the customers to come and buy plants. The average Dutch nursery sees its market as a European market and more than 50% of production is exported to other countries — in contrast, the average German nursery, until recently, saw its market only as a German market and only a relatively small quantity of plants was exported. For example, of the estimated DM1.6 bn worth of plants produced in 1992 only about DM85 m were exported. The

situation has changed rapidly in the 1990s. Nurseries are becoming more marketing orientated and are trying to satisfy the needs of customers. Many young and dynamic nursery people are developing new markets and export will in future be of more importance for them. Figure 1 shows the main nursery stock producing areas of Germany mentioned in this article.
The following trends can be observed in the German market for individual groups of plants:

Forest Nurseries. These have been having a difficult time in recent years because many forest nurseries were taken over in East Germany by West German nurseries after the reunification of Germany in 1990. The market was already getting difficult in the West but after reunification little public money was spent in reforestation. There has been a tendency to plant at wider spacings and in many cases the private forests have turned to natural regeneration because the price of wood was so low for a number of years. With rising wood prices, the need for more plants will increase again. Most of the forest seedlings in Germany are produced in Pinneberg, near Hamburg, and grown-on to a saleable size in other nurseries, in Bavaria for example. The biggest nurseries have halved production in the last few years to try and correct the price situation.

Seedlings of Ornamental Plants and Plants for Landscaping. These are grown mostly in Pinneberg, an area which includes some of the best nurseries in Europe. These nurseries are highly mechanised because of the high cost of labour. The demand for plants from native seed sources is increasing but earlier fears of some nurseries, that they would loose business to other regions as a consequence of that demand, have not materialised. The climatic advantages of the traditional nursery areas are more important for successful production of native plants. Nursery growers in Bavaria, for example, still want to have their native seed sown in areas such as Pinneberg.

Young Plants and Liners. These are produced from cuttings and grafting, propagation techniques now concentrated in a few major nurseries. Most growers now do very little propagating and prefer to buy in the young plants. The quality of young plants from specialised nurseries is excellent and these companies are also exporting quite a lot.

Rhododendrons and Other Evergreen Plants. These have traditionally been grown in the Oldenburg area of Germany and to a much lesser extent in Pinneberg and Dresden. Oldenburg is the biggest centre in Europe for the production of rhododendrons and other ericaceous plants. At least 10 million rhododendrons are grown there each year. Sales of these plants have been stimulated by the breeding and selection of a new rootstock that tolerates a high soil pH — the Inkarho rootstock.

Roses. They are grown in Pinneberg where some of the most important breeders of roses in the world are based, such as Kordes and Tantau. Many roses are also grown in Steinfurt near Frankfurt — a traditional rose growing area. The number of roses sold in Germany over the last few decades has dropped from about 40 to 20 million. The main reason is the perception of roses as being susceptible to pests and diseases and a change in fashions — beds of roses are no longer so common.

Fruit Trees. Nurseries producing fruit trees have been under pressure for many years in Germany. Competition from Dutch and Italian growers has been increasing and much innovation has come from outside Germany, especially from The Netherlands. A high percentage of trees for commercial fruit growers is imported. Important fruit tree producers are to be found in Pinneberg, Meckenheim, and Forchheim.

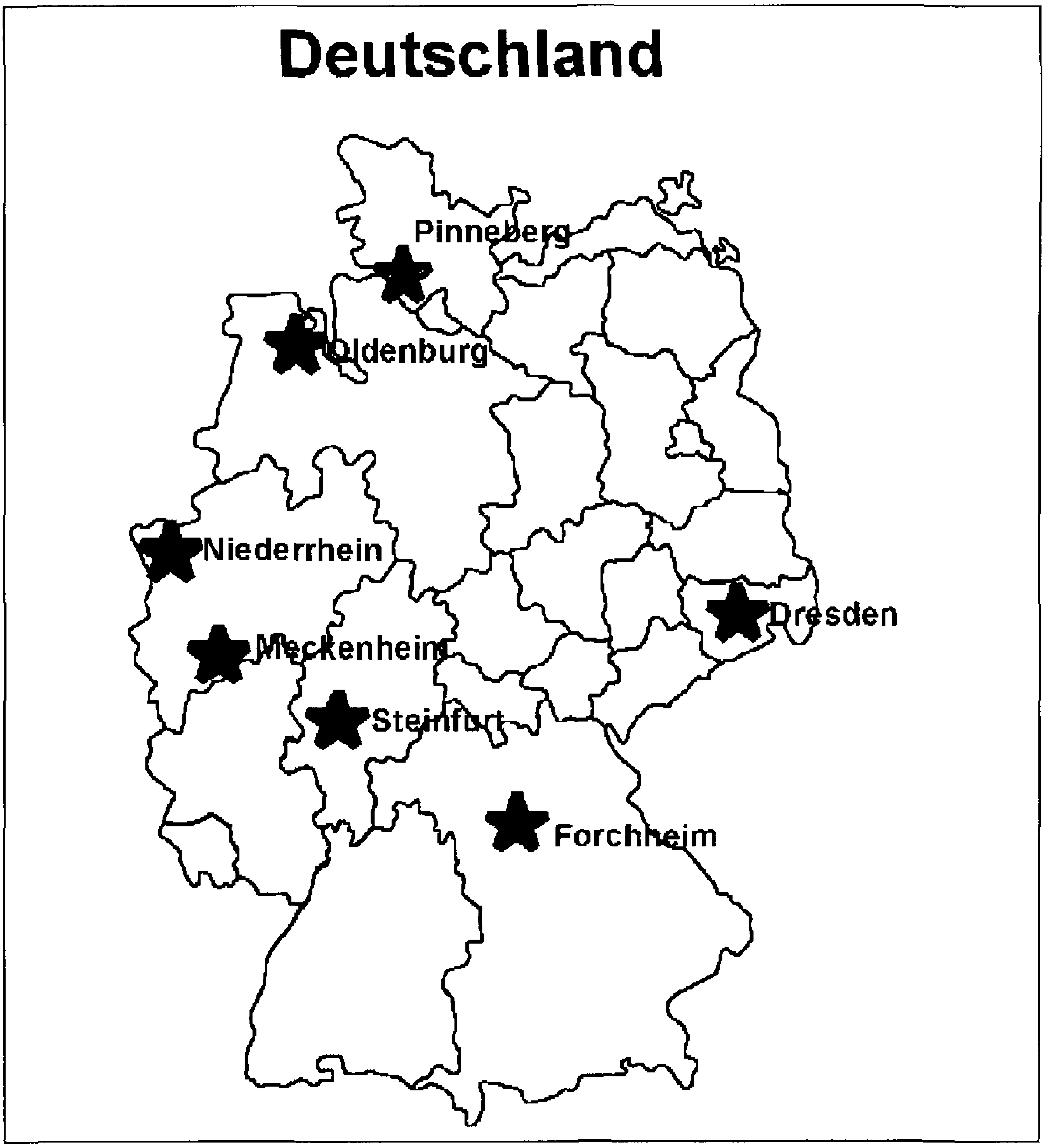

Figure 1. The main nursery stock producing areas of Germany mentioned in this article.

Trees. Ornamental trees for landscape and amenity planting are divided into two groups. In Europe, propagation and growing of general ornamental trees has been concentrating more and more in Dutch and Italian hands. However, the production of large trees is a specialty of a few German nurseries, for example Bruns (Oldenburg), v. Ehren (Hamburg), and Lappen (Niederrhein). When it comes to the largest or most prestigious European planting projects, such as Disneyland in Paris or Canary Wharf in England, one of these German nurseries is nearly always a main supplier of specimen trees and shrubs.

Table 1. Trends in nursery stock production in Germany*.

	Federal Republic of Germany (former)				East Germany	Germany (united)		
Year	1986	1988	1990	1992	1992	1992	1994	1996
Nurseries (number)	4129	4057	3927	3804	280	4084	4085	4101
Total nursery area (ha)	19430	20715	21381	22712	3014	25726	27133	27011
Breakdown:								
Fruit (ha)	1311	1336	1263	1324	341	1665	1699	1577
Ornamental plants (ha)	10817	11192	11499	12183	1033	13216	13942	13990
Forest plants (ha)	2713	2934	3205	3253	610	3863	4183	4073
Others (ha)	4589	5253	5414	5952	1030	6982	7309	7370
Average nursery (ha)	4.7	5.1	5.4	6	11	6.3	6.6	6.6

*Source: Federal statistics office.

Table 2. Total value of tree and shrub production in Germany (DM, millions)*.

Year	1988/89	1989/90	1990/91	1991/92	1992/93
Total Sales	1300	1350	1430	1440	1610

*Source: Federal Government reports

Ornamental Shrubs. These crops account for almost half of the area under nursery stock in Germany. The move to more container grown plants is quite evident. Of great importance for the further development of large nurseries is the change in the market situation in central Europe. Chain stores, DIY stores, garden centre chains, etc., need large quantities of good quality product. Nurseries with good logistics and service are doing good business. Smaller nurseries cannot generally compete in this market.

CONCLUSIONS

The traditional centres of nursery stock production in Germany are getting stronger while many smaller nurseries scattered throughout Germany are declining or developing into service centres for those customers wanting gardens designed and planted. The process of concentration not only in Germany but in the whole of the E.U. will rapidly increase in the coming years and will be hastened by the introduction of the new E.C. currency, the Euro.

LITERATURE CITED

Alpen, P., E. Beitz, C. Hell, F. Richert, W. Sievers, and **H. Wiebicke.** 1994. Cronick der Baumschulen Schleswig-Holstein Landesverband Schleswig-Holstein im Bund deutscher Baumschulen e.V.

Henne, D.L. 1776. Anweisung wie man eine Baumschule von Obstbäumen im Großen anlegen und gehörig unterhalten solle, Halle: J.C. Hendel

Buhrmester, C., A. Wicharz, and R. Welsch. 1998. Ertragslage Garten- und Weinbau 1998. Federal Ministry of Food, Agriculture and Forestry, Bonn, Germany

Statistisches Bundesamt (Federal Office for Statistics). Wiesbaden. Yearly publications.